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L2: Entry 1 of 4

File: USPT

Dec 7, 1999

DOCUMENT-IDENTIFIER: US 5999927 A

TITLE: Method and apparatus for information access employing overlapping clusters

Brief Summary Text (5):

Such procedures of stagewise choice have been used most frequently when access is based, interactively, on the user's judgment. Limitations of display methods and or the user's short-term memory make it infeasible to go at once to the many last-stage clusters. The difficulty arising from mistaken choices when what is sought falls near a division between clusters is often addressed by allowing the user to choose two or more clusters in indecisive situations. This leads to the proliferation of paths unless, as illustrated by the scatter-gather method taught in U.S. Pat. No. 5,442,778 to Pedersen et al., the clustering is always done "on the fly" at each stage of choice. This ameliorates the difficulty near the margins, but enforces an increase in the number of stages because of repeated doublings. The present invention attacks the previously noted difficulty more efficiently by planning for overlap at the margins--so that every cluster is moderately larger than a cluster from a corresponding set of disjoint (i.e., non-overlapping) clusters would be.

Detailed Description Text (29):

Turning now to FIG. 7, groups 122 of FIG. 5 are illustrated in the user interface window 151b, again as a series of five windows numbered 180, 182, 184, 186 and 188. As previously described with respect to FIG. 6, each of the windows contains a banner and a list section and associated buttons and information therein. As is apparent, there is more overlap present in the second iteration of the overlapping clusters as shown in FIG. 7. In particular, one will note that if a total of all documents appearing in each cluster is taken, the total adds up to a number greater than the 217 documents indicated to be in the subcorpus associated with cluster 3 in FIG. 6 (groups 116 of FIG. 5). In fact the total is approximately 25% greater, indicating that each of the clusters has approximately up to a 25% overlap of documents with one or more of the other clusters. Again, as an example of overlapping documents, it can be seen that cluster windows 184 and 186 both list document 366321 therein. It will be appreciated that the lists may be ordered in the cluster windows by descending order of their similarity to the cluster attractor (principal feature terms for which are listed in the terms field 170). Accordingly, those documents that overlap are likely to be lower in the lists as they are "added" to the clusters by extending the initial structures as previously described in detail with respect to the structuring operation of FIGS. 3 and 4.

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Nov 12, 1996

http://westbrs:9000/bin/cgi-bin/accum_query.pl?MODE=%20%20%20%20Display%20%20%20... 5/8/04